

SEQ ID NO:1

1 GGCAATGGGT CGAAATTCTAT AGAATTTGT GTGAGGTGCG TAGCGGCTCT
51 GACAGGGGTG CTGCGCGGAG ATCTCTGGTC TCAGGGTAGGG CGACAATGGAA
101 GAGGTGTTAG TTGCCCCCTG TATCGCTCTC TGCGTGGCGC ATTGGGTCTAT
151 CCTGCCCGGA CATATGATAT TCCGCTAGAG GATTACTGAT AGTTTCTGCC
201 TGTGGGGCTT GTCGGGCTTG TCAGGGCTTGT CGGGCTTGTGTC GGGCCTGTCC
251 CTCTTGTCCTC GCCTGTCTC ACTTTTCAC AATCAAAAAA TGGGCGAAGC
301 CCTTCTGTT CTATAGTTCT TATAGTTCAT ACGAAAATTA CACATAATTA
351 TCAATAGCTT ATTGCGTTAA AAGGGAGTAA TTGGGCCGCA AAAGGGAGTA
401 ATTGGGCCGC AAAAGGGAGT AATTGGGCCG CAAAAGGGAG TAATTGGGCC
451 GATATCGGTT GTTACATGG GGAGGAATCC CCTTAATCAT TTCTCCCCAT
501 GGGAAAGACA ACACAAGTGG CCGCAGACCG GGCCTTCGAC CAGACAAAAA
551 CTGTGCTCCC TGCGGAGGTG GCGAGAGGGG TCTATATGCG CAATCCGCC
601 CGCCTGCAGG CGCTCAAGCT CATGCATTAA ATGATAGCCA CTGCGGGCGG
651 CCGCATGGCT GATGATGTGC GCCATGAAAT GCGGCTGGCC GACATTGCG
701 CAATCGACGG CATGAAAAAC CATGACCGTG AGAGCCTGAC CCCGCTGTT
751 GAGGAGCTAG CCGCTGCGGT GTTGACCCAT GATGACCCGT CAAAGATGAT
801 CGTGACAGTC GGCAGCTTGG TCGATGAGGC GCGAATAGAC TACCGCCAGG
851 AGGCAAGCGG CGAACCTCTA GTGACGTGGA CCTTCCGGAG TACATTCCGT
901 CGTATGGCGG CGGAGTCGAA CCACGGGCC ATTCTCGACC GTCAAACGGT
951 ATTCCATCTC GGTAGTAAGT ATTCCGTGCT GCTGTTCCAG CACGTCTCTA
1001 GTCTCGCCAA TCTTGATCGG ATGAGCGCGA AAACCTTTAC GGTCCCCGAG
1051 TTGCGGGCGC TCCTTGAGT GCCCGAGGGG AAGATGGTTC GTTGGAACGA
1101 CGTTAACAGA TTTGCTCTCA AACCTGCCT GGATGAGATC AACCATTAT
1151 CGCGTCTGAC ATTGACGGCA AAGCCGACCA AGATTGGCCG TAGCGTGGCA
1201 AGTGTGACTA TAGGCTGGGA AGTGAAGAC GACCCAACCG TCGCCAGGCG
1251 CGAGCTGGCG GGTTCCAAGG TCGGTCGAGA TGCTCGTCG AGAGGGCGAG
1301 CGGAAACGAT AGCCCCCTCC TTCCCGAGAG CGGGCGGGAT CACCTACAGT
1351 CCACGTTGGC TGGAGCTGAA ACGCTCTGCT GGCAGCAACA AGGACAACGA
1401 TCTGATCGCC TCAGACTTCC GGCGTTCTG TCGGGAGAGA GGCCTGCGTC
1451 TGGACGCTGC AAACATCGAA AAACGTTTT TAGATTCTG CGCAAAGGTA
1501 GGGAAAGGTTT GAGTTTGAG GTATTCACC GCAATAGTGT TAAATGACTT
1551 TCGTAAACG ATGTGCAATA TAGCGGTAAG ACTATGAAAT ACACGGCTGG
1601 ACAGGCTGCA AAACCAACGG GTGTGGCGAC CGCAACCATC ACTCGGGCGC
1651 TAAAAAGCGG TAAAAATTCC GGTAAAAAG ATGAATCTGG GGCATGGGTT
1701 ATAGATCCTG CAGAATTGCA CAGAGTGTGTT CCTCCATT CAAAGAAATA
1751 CACCGAAACA CCTAACACGC AAGTATATGG TAAGCGTGT GAAACACATG
1801 AAATGACCTC AGAAATCAGC GCATTAGAGC GTGAAGTTCG GACTTTACGC
1851 GATGCTTAT CTGATGCCAG GGAGGATCGC GACAAATGGC GCGACATGGC
1901 CGAGCGTCTT TCAATTCAT CACCGATGAG AGAGGAAGAC CGCCCCCCTC
1951 AAAAACAAAG ATGGTGGAAAG ATATTCTGAT CCTGGGCTTC AGGAGCCTTG

FIGURE 1A

2001 CCTTTACTGG CGGAAAAACG CGATATTGAG GCACAGGCC GCACTTAGA
2051 GGCGGAAGCC TATAACGAGT ACCAAAACAC TAGAAGCCAG ATTGAGGAAA
2101 ATAGGGAACG TG

FIGURE 1B

SEQ ID NO:2

1 TGGTGAACGC ATTGGCTTGA TGTTTGAGAA AAGCGAAAAG ACCCGGCCAC
51 AGTTGTGGGT AGAGCGTCGA TATGTGCAAG ACCTGATGCT TGCTGACATC
101 GAACTCCGTG TCTACCTCGC ATCGTCGCTG TATCAGCCTG CTGCGGATGG
151 CGGAAAGCCC GCCTATGGTC GTCACGCAGC CCTTAAGGCG ATGCGCGACT
201 TGGCCCATTGC CGATCTGGTG CGTTTCACCA TCGGCCGGAT TACGCAACTG
251 GAGATGATCC TAGAGCGGTT AACCGAGACA TCTGGTTAAC GCCATAAAGG
301 CTGCGGCATG AAAATAGGCG GACAATCTGC GCTTGGCCGC CCCCCTTC
351 AGCCGTGCTT GCTCTCTGCC TGCACTGGCAC GACGCAGGAT CGCGTTCAT
401 CGGGTCTGAT ATCCAGACCC GCCCCCCTTG AGCCATGCCA GCACATCGGC
451 ATCAAGCCGC GCGGTGATCT GCTGCTTGAT CGGGCGATAG AAGCGCCAC
501 GCTCGGCATC TGCCCATATTGG GCTTCGGTCA GCTCGGGAAC ATCGTTGGTG
551 TCGATCTGCT CGGGCGGCAG AGCGTCCAGC CGCGCCAATT TCTTGC
601 CTCCTCGGTA AGAGCGGGCA GCGTATCGAA GGTGTATTCA ACCATTGGCA
651 TATCTCTTCC TTTCCTGCGG TGTAGCGCG CGAGCCGAAA TGATGCGGAT
701 CGTCTCGACC GGATCGGGGC CAGCCTCGAT GATCAGGTGG GCAACCAGAA
751 GGACGGCAGC GCCATAGATC TGCCCAACGG TTTGCCAGCG GTATTCCCCG
801 CCCTCGATCC TATCCTGAAC CGTCAGGTGC AACGGATCGG CGAACACATG
851 CACAGCATCC TCGAACCGGA TGCCATGCTT CTTTTCGTTC GTTTCCGC
901 TGGCGGGATC CCAGATAAAC CGCATCTTCA TGGCAGAAATT ATAAC
951 ATTGTAGTT ATTCAATGGC AAGTCGCAGG TTCAAATCAC GCCCCCAAAC
1001 CGCAACTGTA TTCGTTCTAC TCACCGCGC TTTTGAATAG AAGCTTGCAT
1051 GATAACACCC GCCCGTCTC CAACAAAATA AGGCAAATCC GCCCGC
1101 CGCAATCTGC GCTTGTGCA TGCAAGGTCT TGTGGTTCA TACTGCAAGA
1151 GCATGCAAGG AATTGCCCG GATGAGCACC ACGACGACAC CCACCAAGCC
1201 GGCCTGGAAC AAGGGCCGCG TTGTCCGGAA AAAGCCGCCG CTGACACCTG
1251 ACCAGATTGC CCTGATCCGT CTCATCCTGC GCCAGGAACG GGC
1301 GATCTGGCTC TGTTCAACGT GGCGATCGAC ACCAGTTGC GCGGCTCGGA
1351 CCTCGTGCCTCGC CTGCGCGTCT CGGATGTGGC GACCCAGCT GGTCTCGTG
1401 AGATCGTCGA GATCCGCCAG AAGAAGACCG AGGCCCGCAA TGTCCGCC
1451 GTACAGGGCCC GCCTGTCGGA GGGGACACGC GAGAGCCTGC GGGTCTATCT
1501 CGCGGCCTCT GACAAGCCGC TGCACAGCTG GCTGTTCACC GGACAGGGCA
1551 TCCGCTGGTC CCACACCCAC CTTAGCGAGA GCCAGCTGTG GCGCCTGTT
1601 AAGTCCTGGC TCGAGAAGGC GCGGCTCGAT CCCAGCCTCT ACGGGCTGCA
1651 CTCGCTGCCTCGC CGAACCTTCC CCAGCCACAT CTACCGCGAG ACCGGCAATC
1701 TGCGCGCCGC ACAGCTGCTG CTGGGCCATG CCAGCATCGA GAGCACCAAG
1751 GAGTACATCG GCACCGAGCA AGCCGAGGCC CTCGATATCG CACGGAGGTA
1801 TCACCTCTAA CCCATGGAGA CCTATCTCGA GAAGCGCATC CCCGCC
1851 ACACAGCACG GTTCTACCGC ATGGCGGTCC TGCCGAACCT GTTC
1901 TGGACGCTGT ATCGAGAATG GGGCCGCATT GGCATCAGCG GCCGCATCCG
1951 GCTCGATTGG TTTGAGAGTG AACAGATGC CATCGCTGCG ATGCTCGCCA

FIGURE 2A

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2001 TCGAGACCGC CAAGCGTCAG CGCGGGTATT GGCTCGAGCC CATCCAGATT
2051 GACATGTTCC CAGGGGCATA ACAGGCCATC AATGTAAGAG TGCAAGCGGA
2101 GCAAGCAAAA GCCATTCAC AGTGAGGTGG CAGATGTTCC TGTTTCACAG
2151 TGAAAGCGCT GATGCTGTT CCACGCCACA GACTGATACG ACCAAAGCAA
2201 CGGGGTCTGC CGCCACAGAC CGGTTCGCCG GCCACCCGCA GAAACGCAGG
2251 TAAAATGGCG ATTCCGCAA AAAAACCGTG CAAATGATGG CAAATCACCA
2301 TCCAGTTCA TCCTGAAACC CGTCGCTCAA CATGAACGAG CAGGCCATCA
2351 TCCAAGCCCC AGAAACGCGG TGCGGCAGT ACAGATGAGC GATGTTCTGG
2401 CTCATAGGCT GCAAGGCCCT GCAACAGTGA TTTCACCGTG AGATTGCAGG
2451 GTCTTTGGC TCTCCGCAA GAGCCACCTC AGGGTGAGCG AGCTAGCCGT
2501 CTAGGTTCAC AGTGAAATCG CTGAGGAGCG TTGCGGGGCT TATGGTTTGG
2551 CTGGTCACGT TGCCCATCGG AATGGAGCAT ACGATGGCTT CTACGCAGTC
2601 GAATCCTGAG GCTTCACGTG GGAAAAAATAC GCTCCAAAAA AGCCCTGACC
2651 AAATCTTGA AAAATTGCTT GAAAAGTTG CTTCTAAAAA ACTGGGAACG
2701 AGATATGCAC GAGATCCCTT ACGAGTGCTG TAGGAGTAAT GCAGTGGAC
2751 AAAACGCCAT TTTTGCCCC AGTAGGAGTA ATGGAGTGGT TATTTTTGG
2801 GAGATTTGC TTCAGTAGGA GTAACCGCGT GTTAAATTT GCTTGATTGG
2851 CGGTTCAAAT CGACCACCGA GCTGCCGTTG GTCTGATTG ATCTGCCCG
2901 CAATTGGCA CTTGCAGGCC ATCCCCCTGA ACTTCTGGCG ATGACCATT
2951 CGAAGGCAAT GGGTCGAAAT TCATAGAATT TTGTGTGAGG TGCGTAGCGG
3001 CTCTGACAGG GGTGCTGCCG GGAGATCTCT GGTCTCAGGT AGGGCGACAA
3051 TGGAGAGGTG TTAGTTGCC CCTGTATCGC TCTCTCGTG GCGCATTGGG
3101 TCATCCTGCC CGGACATATG ATATTCCGCT AGAGGATTAC TGATAGTTTC
3151 TGCCCTGCGG GCTTGTGCGG CTTGTCGGG TTGTCGGGCT TGTGGGGCCT
3201 GTCCCTCTTG TCCCACCTGT CCTCACTTT TCACAATCAA AAAATGGCG
3251 AAGCCCTTCT TGTTCTATAG TTCTTATAGT TCATACGAAA ATTACACATA
3301 ATTATCAATA GCTTATTCGC TTAAAAGGA GTAATTGGGC CGCAAAAGGG
3351 AGTAATTGGG CCGCAAAAGG GAGTAATTGG GCCGCAAAAG GGAGTAATTG
3401 GGCGATATC GGTTGTTAC ATGGGGAGGA ATCCCCCTAA TCATTTCTCC
3451 CCATGGAAA GACAACACAA GTGGCCGCAG ACCGGGCCTT CGACCAGACA
3501 AAAACTGTGC TCCCTGCCGA GGTGGCGAGA GGGGTCTATA TGCGCAATCC
3551 GCCCCGCCTG CAGGCCTCA AGCTCATGCA TTTAATGATA GCCACTGCGG
3601 GCGGCCGCAT GGCTGATGAT GTGCGCCATG AAATGCGGCT GGCGACATT
3651 CGCGCAATCG ACGGCATGAA AAACCATGAC CGTGAGAGCC TGACCCCGCT
3701 GTTCGAGGAG CTAGCCGCTG CGGTGTTGAC CCATGATGAC CCTGCAAAGA
3751 TGATCGTGAC AGTCGGCGGC TTGGTCGATG AGGCGCGAAT AGACTACCGC
3801 CAGGAGGCAA GCGGCGAACT CCTAGTGACG TGGACCTTCC GGAGTACATT
3851 CCGTCGTATG GCGCGGGAGT CGAACCACTG GGCCATTCTC GACCGTCAAA
3901 CGGTATTCCA TCTCGGTAGT AAGTATTCCG TGCTGCTGTT CCAGCACGTC
3951 TCTAGTCTCG CCAATCTTGA TCGGATGAGC GCGAAAACCT TTACGGTCCC
4001 CGAGTTGCGG GCGCTCCTTG GAGTGCCTGA GGGAAAGATG GTTCGTTGGA
4051 ACGACGTTAA CAGATTGCT CTCAAAACCTG CACTGGATGA GATCAACCAT

FIGURE 2B

4101 TTATCGCGTC TGACATTGAC GGCAAAGCCG ACCAAGATTG GCCGTAGCGT
4151 GGCAAGTGTG ACTATAGGCT GGGAACTGAA AGACGACCCA ACCGTCGCCA
4201 GGCAGCAGCT GGCAGGTTCC AAGGTCGGTC GAGATGCTCG TCGCAGAGGG
4251 GCAGCGGAAA CGATAGCCCC CTCCTTCCC GAAGCAGGGCG GGATCACCTA
4301 CAGTCCACGT TGGCTGGAGC TGAAACGCTC TGCTGGCAGC AACAAAGGACA
4351 ACGATCTGAT CGCCTCAGAC TTCCGGCGTT TCTGTCGGGA GAGAGGCGTG
4401 CGTCTGGACG CTGCAAACAT CGAAAAACTG TTTTAGATT TCTGCGCAA
4451 GGTAGGGAAG GTTGAGTT TGAGGTATTT CACCGCAATA GTGTTAAATG
4501 ACTTCGTGA AACGATGTGC AATATAGCGG TAAGACTATG AAATACACCGG
4551 CTGGACAGGC TGCAAAAGCA ACGGGTGTGG CGACCGCAAC CATCACTCGG
4601 GCGCTAAAAA CGGGTAAAAT TTCCGGTAAA AAAGATGAAT CTGGGGCATG
4651 GGTTATAGAT CCTGCAGAAT TGCACAGAGT GTTCTCTCCC ATTTCAAAGA
4701 AATACACCGA AACACCTAAC ACGCAAGTAT ATGGTAAGCG TGATGAAACA
4751 CATGAAATGA CCTCAGAAAT CAGCGCATT GAGCGTGAAG TTCGGACTTT
4801 ACGCGATGCT TTATCTGATG CCAGGGAGGA TCGCGACAAA TGGCGCGACA
4851 TGGCCGAGCG TCTTCAATT TCATCACCGA TGAGAGAGGA AGACCGCCCC
4901 CCTCAAAAC AAAGATGGTG GAAGATATTG TGATCCTGGG CTTCAGGAGC
4951 CTTGCCTTTA AACCTGAAT CAGCATTCTA GCGATGCTGA TAAGAAGTAA
5001 ATATAGCCAC AATAGAGCGG CCATTTCCA TTCACATACA GCTCATCATG
5051 TGATCAATAT CAAGTATTGA TATTCAACAA TGGAGAAAGAA TTTACATGTA
5101 TCACAGGATC ATCACAGCAT TTGTTTTGT ATTTCTAAGT GCTAACATAA
5151 CTATCGCTGG CCCTAAAGAA GATTGACTA TTGCAGTATC TCACCTTGGG
5201 TTTCAGACCG ATAATTACAG CTTTGTGAA GCCGGTTTT TTGCCAGAGA
5251 GAGACACGTT TTTGATGGTG TAATAAACTG CTACGTATCT CATGATGGTA
5301 ACATACACAG CATCATCCGG GGCAACACAC CTCTTATGGA AGATGGATAT
5351 TATGGCCAG AAGTACTGGC GGAAAAACGC GATATTGAGG CACAGGCCCG
5401 CACTTTAGAG GCGGAAGCCT ATAACCGAGTA CCAAAACACT AGAAGCCAGA
5451 TTGAGGAAAA TAGGGAACGT GCCCTCGAGG CGCTGCGGCT AGCTAGCAGT
5501 CCTTTTATTA ATAATGGTAG TACAGAAGAA CAGACAATTAA TACAGGCCGC
5551 AACTCCGACG GCAGATCCTG TTGTATCTGT ACCCGTGGCA TCTCCAGAAAT
5601 CTAAACAAAG TCGAGAGCCG GAACCGGCTG CTGTTCCAGC ATCAGTTCT
5651 GTTAGAGAGA TGTGGAGCAC GGCTGACAGA TTGACCACCC GTACATGCC
5701 ATCGACTCGA TGCGGAGCAA CTAGCTGGGT AACAGATGGA ACTAAAGTAA
5751 CAGTTTATGA AGAAAAAGAC GGTTGGCTA GAATCGGAGA GCTACAGTCT
5801 GCAATGTGCA TAAATGGAAT AAGTGGCGCG GTCGATTCAAG GTGAATCTTC
5851 CTGCAATCCC ACCAATGGTA TCGTTAATGG GCAATTGCA CCCTGGTTT
5901 TCTCGGATTA TCTTACGATC CAAGAGCCAG AAGCTCCCAT ATCCACCCAA
5951 GAGTGTGCAA ATATGGGCT CGAGAACTCA GATAATTACC GTATCTATT
6001 TAGTCAGTTC TGCAGTGCAG CTCTCGAAAT GATCAACGAT AGAGTATGCA
6051 ATACATCTGA TTTCAGAGAT TTAGCTGGT TATCTTCTCC TGAAAGAGGA
6101 CAGGATTACT ACTTCACCTA TTGTGGCGGA TTTCAACCTC AAAACAGATG
6151 GTATTTGAAT GTCAGGACAG GTGAAATCAC CCGCTGATAT TCCACCAAGG

FIGURE 2C

6201 TGAGTCCTGT AGATCAGACT CTCAGGAGT AAACGTTTA ATCCATCTCC
6251 ATGAGATCAA CATAGATAGG TGTTCACTCC CGGCATCTGG TGGATCGGGT
6301 TTAGGATGAA TCTGTCCGGC TCTTGACATA CCCCCGCGTG AAACCCGTGTC
6351 TTTACAAGAG AAAGTCAGCG GCCTCGAAGC CGCTCTAGCC GATGCCCGGG
6401 CCCAACGGGA TGAGTAGAGC GAACAAGCAA AGCGCCTAGC TATGGCTCTG
6451 CCCGTCCCGG AAGCTGCAGC CGCAGAATCC GGAAAAAAGA AAAAATACAT
6501 GGCAGCGATT ATTGGATAG GACACAATCC TTTCTATTAA ATATACAACA
6551 AGATATGGC ATGCGCCGCG CGTGATCCTC ATTCGATACA ATCCAAATCC
6601 TGAAAGCTGA CTATGCCCTA CGCATCGCG ACCATCGGTG CCGTCATTGA
6651 TGACGTGAAC CGCACCTACC TGCTGCCCGC AATCCAACGC CCCTATGTCT
6701 GGTCTGCCGG ACAGGTCGTT GCGCTGTTTCG ACTCTCTGTT GAAGGGCTAT
6751 CCGATCAGCA GCTTCATGTT CTGGCGGTG GACGAGGAGA CCAAGGCAGA
6801 GCTGCGATGC TACAAATTCA TCGAGAATTA TCAGGCCCCAA ATGATGAACG
6851 AGCCGACTAG TGCGGACGGG CGGCAGGTCG TCCTTGTGCT CGACGGACAG
6901 CAGCGGATGA CCTCACTGTT GATCGGCTTG CGCGGCACAT TCTCTGAGAA
6951 AGCCAAACAC GCGCGCAACA GCAACCGGGC GGCGTGGTCG GCAAAACGC
7001 TATATCTAGA CCTGCTTCGG GACCCGGATC CGAAGAACTC CGATGAAGAC
7051 GAAGGCAATG AGTTGGAAT CACTTACGGT CTCTCTTCC ATGAAACGCCG
7101 CCCGACCAGC AGCCACAGGC ACCACTGGTT CAAGGTGGGA TCGATACTGG
7151 ATTATCCTAC AGACGAGCAG CTGGAGGGGT TGATTGCCAA GGTGAAGACC
7201 GAATTTCATC ATGGTGTATC GGATTGGAA AAGGGGCTGG CGGAAGACAC
7251 CCTGCGCCGG TTGCACCGCG TCATCTGGAA AGACGAGGGC ATCAACTTTT
7301 TCACTGAACG CGACCAAGTCG GTTGATCGGG TGCTGGACAT CTTCGTGCAG
7351 GCCAATGACG GGGGCACGAA ACTGTCGAAG GCAGACCTGC TGATGTCGAT
7401 GATCACGTCA AAATGGTCCA GCGGATCGGC CGCGGAGGAA ATCGGGGGCT
7451 TTGTCGAGCA CATAAACAAA GGTCTCGGTG CGCCGAACAA GATCAGTCGC
7501 GATCTGGTCC TGAAGGCCTG TCTGGTCGTC TGCGATTATG ATGTCGTCTA
7551 TAATGTCAGG AACTTACAA GCGAGGTCAT CGGCAGGATC GAAAGCAACT
7601 GGGATCGTAT CAAGCAGGCA TTGAGAACAA CGTTCCGCCT GCTGAACAGG
7651 CATGGCATCA CGGGGATAA CCTCGGCTCT TTGAACCGGG TGCTGCCTCT
7701 GGTCTATTAT ATCTACAACA CGCCGGATTT CGATTCCGA GGATCGAGCG
7751 AGTTGAGCG GGTCAATGCC AGCTCCATGC ACCTCTGGTT GGTGAACAGC
7801 CTGCTGGTCA GCGCCTTCGT TGGCCATTG GATCAGACCA TCACCACCGC
7851 GCGCAATACG ATCCCGGATC ACCTGCGTGT AGGCCGCGAT TTCCCAGTAC
7901 GAAAGCTGTT CGATGCCATG GCGAAGGGGG GACGGCTATC TCAGGTGGAT
7951 GAGCGTACCA TCGAAGAATT GCTGGAAATG CAATATGGCA AGCCCCGGAC
8001 CTTCGTTGCG CTGTCGCTGC TCTATCAGGG CATCGACTGG AACGGATCGA
8051 CCTGGCATGT CGATCATATC ATTCCCCAAG CGGACGCTCA GAAAATGTG
8101 CTGCGCGGGC GCAATCTGCC CGAGCATCGC ATTCAAGAAA TCTTGGCGC
8151 GGTTAACAGT TTGGGCAACC TGCAACTTTT GCGCGGAGAT GAGAATATCG
8201 AGAAAGGTGC GCTGCCATTGAGGTCATGGAA TTACCGGACG GCGCGTTGAT
8251 TTCTACGAGC AGCATATGAT CCCGGCCAC CTTGAACGT GCGATGTACT

FIGURE 2D

8301 GCATCTGCC C GAGTTCGTGC GCGAACGGGA AAAGGTGATC CGGCGCCGTT
8351 TGATGGAGTT GGTCGGAGCA CGACGCGCAT GAATGAGGTC GTCTTGTAC
8401 GCGAAGAGCT GCGTCAATCT TGTCTCGACC TGCTTGAAAA ACGCGCTGTC
8451 GAACACCCCTG CGGGACACCA AGGCAAGCTC GCCGCCGCT ATGTTGTGCA
8501 CCGCGACGA

FIGURE 2E

SEQ ID NO:3

1 TCGCGCGTTT CGGTGATGAC GGTGAAAACC TCTGACACAT GCAGCTCCCG
51 GAGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA GACAAGCCCG
101 TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTAACTATG
151 CGGCATCAGA GCAGATTGTA CTGAGAGTGC ACCATATGCG GTGTGAAATA
201 CCGCACAGAT GCGTAAGGAG AAAATACCGC ATCAGGCCGC ATTGCCATT
251 CAGGCTGCGC AACTGTTGGG AAGGGCGATC GGTGCGGGCC TCTTCGCTAT
301 TACGCCAGCT GGCAGAAAGGG GGATGTGCTG CAAGGCGATT AAGTTGGGTA
351 ACGCCAGGGT TTTCCCAGTC ACGACGTTGT AAAACGACGG CCAGTGAATT
401 CGGCAATGGG TCGAAATTCA TAGAATTTG TGTGAGGTGC GTAGCGGCTC
451 TGACAGGGGT GCTGCGCGGA GATCTCTGGT CTCAGGTAGG GCGACAATGG
501 AGAGGGTGT TA GTTGCCCCCT GTATCGCTCT CTGCGTGGCG CATTGGGTCA
551 TCCTGCCCGG ACATATGATA TTCCGCTAGA GGATTACTGA TAGTTTCTGC
601 CTGTCGGGCT TGTGCGGCTT GTCGGGCTTG TCGGGCTTGT CGGGCCTGTC
651 CCTCTTGTCC CGCCTGTCCT CACTTTCA CAATCAAAAA ATGGCGAAG
701 CCCTTCTTGT TCTATAGTTTCA TTATAGTTCA TACGAAAATT ACACATAATT
751 ATCAAATAGCT TATTGCGCTTA AAAGGGAGTA ATTGGGCCGC AAAAGGGAGT
801 AATTGGCCG CAAAAGGGAG TAATTGGGCC GCAAAGGGGA GTAATTGGGC
851 CGATATCGGT TGTGACATG GGGAGGAATC CCCTTAATCA TTTCTCCCCA
901 TGGGAAAGAC AACACAAGTG GCCGCAGACC GGGCCTTCGA CCAGACAAAA
951 ACTGTGCTCC CTGCCGAGGT GGCAGAGGG GTCTATATGC GCAATCCGCC
1001 CCGCCTGCAG GCGCTCAAGC TCATGCATT AATGATAGCC ACTGCGGGCG
1051 GCGCATGGC TGATGATGTG CGCCATGAAA TCGGGCTGGC CGACATTGCG
1101 GCAATCGACG GCATGAAAAA CCATGACCGT GAGAGCCTGA CCCCCTGTT
1151 CGAGGAGCTA GCCGCTGCGG TGTTGACCCA TGATGACCCCT GCAAAGATGA
1201 TCGTGACAGT CGGCGGCTTG GTCGATGAGG CGCGAATAGA CTACCGCCAG
1251 GAGGCAAGCG GCGAACTCCT AGTGACGTGG ACCTTCCGGA GTACATTCCG
1301 TCGTATGGCG CGGGAGTCGA ACCACTGGGC CATTCTCGAC CGTCAAACGG
1351 TATTCCATCT CGGTAGTAAG TATTCCGTGC TGCTGTTCCA GCACGTCTCT
1401 AGTCTGCCA ATCTTGATCG GATGAGCGCG AAAACCTTTA CGGTCCCCGA
1451 GTTGCAGGGCG CTCCCTGGAG TGCCCGAGGG AAAGATGGTT CGTTGGAACG
1501 ACGTTAACAG ATTTGCTCTC AAACCTGCAC TGGATGAGAT CAACCATTAA
1551 TCGCGTCTGA CATTGACGGC AAAGCCGACC AAGATTGGCC GTAGCGTGGC
1601 AAGTGTGACT ATAGGCTGGG AAGTGAAGA CGACCCAACC GTCGCCAGGC
1651 GCGAGCTGGC GGGTTCCAAG GTCGGTCGAG ATGCTCGTCG CAGAGGGCA
1701 GCGGAAACGA TAGCCCCCTC CTTCCCAGAA GCGGGCGGGGA TCACCTACAG
1751 TCCACGTTGG CTGGAGCTGA AACGCTCTGC TGCGCAGCAAC AAGGACAACG
1801 ATCTGATCGC CTCAGACTTC CGGCCTTCT GTGGGGAGAG AGGCGTGCCT
1851 CTGGACGCTG CAAACATCGA AAAACTGTTT TTAGATTCT GCGCAAAGGT
1901 AGGGAAAGGTT TGAGTTTGA GGTATTTCAC CGCAATAGTG TTAAATGACT
1951 TTCGTGAAAC GATGTGCAAT ATAGCGTAA GACTATGAAA TACACGGCTG

FIGURE 3A

D
S
S0
E0
P0
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a
D0
D0
D0
D0
D0

2001 GACAGGGCTGC AAAAGCAACG GGTGTGGCGA CCGCAACCAT CACTCGGGCG
2051 CTAAAAGCG GTAAAATTTC CGGTAAAAAA GATGAATCTG GGGCATGGGT
2101 TATAGATCCT GCAGAATTGC ACAGAGTGTG TTCTCCCATT TCAAAGAAAT
2151 ACACCGAAC ACCTAACACG CAAGTATATG GTAAGCGTGA TGAAACACAT
2201 GAAATGACCT CAGAAATCAG CGCATTAGAG CGTGAAGTTC GGACTTTACG
2251 CGATGCTTTA TCTGATGCCA GGGAGGATCG CGACAAATGG CGCGACATGG
2301 CCGAGCGTCT TTCAATTCA TCACCGATGA GAGAGGAAGA CCGCCCCCCT
2351 CAAAAACAAA GATGGTGGAA GATATTCTGA TCCTGGGCTT CAGGAGCCTT
2401 GCCTTTACTG GCGGAAAAAC GCGATATTGA GGCACAGGCC CGCACTTAG
2451 AGGCGGAAGC CTATAACGAG TACCAAAACA CTAGAAGCCA GATTGAGGAA
2501 AATAGGAAC GTGGGATCCT CTAGAGTCGA CCTGCAGGCA TGCAAGCTTG
2551 GCGTAATCAT GGTCA TAGCT GTTCCCTGTG TGAAATTGTT ATCCGCTCAC
2601 AATTCCACAC AACATACGAG CCGGAAGCAT AAAGTGTAAA GCCTGGGTG
2651 CCTAATGAGT GAGCTAACTC ACATTAATTG CGTTGCGCTC ACTGCCCGCT
2701 TTCCAGTCGG GAAACCTGTC GTGCCAGCTG CATTAATGAA TCGGCCAACG
2751 CGCGGGGAGA GGCAGGTTGC GTATTGGCG CTCTTCCCGCG CTCGGTCTTG
2801 CCTTGCTCGT CGGTGATGTA CTTCACCAAGC TCCGCGAAGT CGCTCTTCTT
2851 GATGGAGCGC ATGGGGACGT GCTTGGCAAT CACGCGCACC CCCCCGGCGT
2901 TTTAGCGGCT AAAAAGTCA TGGCTCTGCC CTCGGGCGGA CCACGCCAT
2951 CATGACCTTG CCAAGCTCGT CCTGCTTCTC TTCGATCTTC GCCAGCAGGG
3001 CGAGGATCGT GGCATCACCG AACCGCGCCG TGCGCGGGTC GTCGGTGAGC
3051 CAGAGTTCA GCAGGCCGCC CAGGCGGCC AGGTGCGCAT TGATGCCGGC
3101 CAGCTCGCG ACAGTGCCTCAT AGTCCACGAC GCCCGTGATT TTGTAGCCCT
3151 GGCGACGGC CAGCAGGTAG GCCGACAGGC TCATGCCGGC CGCCGCCGCC
3201 TTTTCCTCAA TCGCTCTTCG TTCTGCTGGAA AGGCAGTACA CCTTGATAGG
3251 TGGGCTGCC CTCCTGGTTG GCTTGGTTTC ATCAGCCATC CGCTTGCCCT
3301 CATCTGTTAC GCCGGCGGTAA GCCGGCCAGC CTCGCAGAGC AGGATTCCCG
3351 TTGAGCACCG CCAGGTGCGA ATAAGGGACA GTGAAGAAGG AACACCCGCT
3401 CGCGGGTGGG CCTACTTCAC CTATCCTGCC CGGCTGACGC CGTTGGATAC
3451 ACCAAGGAAA GTCTACACGA ACCCTTGCG AAAATCCTGT ATATCGTGC
3501 AAAAAGGATG GATATACCGA AAAAATCGCT ATAATGACCC CGAACCGAGG
3551 TTATGCAGCG GAAAAGCTTC CTCGCTCACT GACTCGCTGC GCTCGGTGCGT
3601 TCGGCTGCC CGAGCGGTAT CAGCTCACTC AAAGGCGGTAA ATACGGTTAT
3651 CCACAGAACG AGGGGATAAC GCAGGAAAGA ACATGTGAGC AAAAGGCCAG
3701 CAAAAGGCCA GGAACCGTAA AAAGGCCCG TGCTGGCGT TTTTCATAG
3751 GCTCCGCCCG CCTGACGAGC ATCACAAAAA TCGACGCTCA AGTCAGAGGT
3801 GGCGAAACCC GACAGGACTA TAAAGATACC AGGCCTTCC CCCTGGAAGC
3851 TCCCTCGTGC GCTCTCTGT TCCGACCTG CCGCTTACCG GATACCTGTC
3901 CGCCTTTCTC CCTCAGGGAA GCGTGGCGCT TTCTCATAGC TCACGCTGTA
3951 GGTATCTCAG TTGGTGTAG GTCGTTCGCT CCAAGCTGGG CTGTGTGCAC
4001 GAACCCCCCG TTCAGCCGA CCGCTGCC TTATCCGGTA ACTATCGTCT
4051 TGAGTCCAAC CCGGTAAGAC ACGACTTATC GCCACTGGCA GCAGCCACTG

FIGURE 3B

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4101 GTAACAGGAT TAGCAGAGCG AGGTATGTAG GCGGTGCTAC AGAGTTCTTG
4151 AAGTGGTGGC CTAACTACGG CTACACTAGA AGGACAGTAT TTGGTATCTG
4201 CGCTCTGCTG AAGCCAGTTA CCTTCGGAAA AAGAGTTGGT AGCTCTTGAT
4251 CCGGAAACAA ACCACCCGCT GGTAGCGGTG GTTTTTTTGT TTGCAAGCAG
4301 CAGATTACGC GCAGAAAAAA AGGATCTCAA GAAGATCCTT TGATCTTTC
4351 TACGGGGTCT GACGCTCAGT GGAACGAAAA CTCACGTTAA GGGATTTGG
4401 TCATGAGATT ATCAAAAAGG ATCTTCACCT AGATCCTTT GGGGGGGGGG
4451 GGCGCTGAGG TCTGCCTCGT GAAGAACGGT TTGCTGACTC ATACCAGGCC
4501 TGAATCGCCC CATCATCCAG CCAGAAAGTG AGGGAGCCAC GGTTGATGAG
4551 AGCTTTGTTG TAGGTGGACC AGTTGGTGTAT TTTGAACTT TGCTTGCCA
4601 CGGAACGGTC TCGGTTGTGG GGAAGATGCG TGATCTGATC CTTCAACTCA
4651 GCAAAAGTTC GATTTATTCA ACAAAAGCCGC CGTCCCGTCA AGTCAGCGTA
4701 ATGCTCTGCC AGTGTACAA CCAATTAAACC AATTCTGATT AGAAAAACTC
4751 ATCGAGCATC AAATGAAACT GCAATTATT CATATCAGGA TTATCAATAC
4801 CATATTTTG AAAAAGCCGT TTCTGTAATG AAGGAGAAAA CTCACCGAGG
4851 CAGTTCCATA GGATGGCAAG ATCCTGGTAT CGGTCTGCGA TTCCGACTCG
4901 TCCAACATCA ATACAACCTA TTAATTCCC CTCGTCAAAA ATAAGGTTAT
4951 CAAGTGAGAA ATCACCATGA GTGACGACTG AATCCGGTGA GAATGGCAAA
5001 AGCTTATGCA TTTCTTCCA GACTTGTCA ACAGGCCAGC CATTACGCTC
5051 GTCATCAAAA TCACTCGCAT CAACCAAACC GTTATTTCATT CGTGATTGCG
5101 CCTGAGCGAG ACGAAATACG CGATCGCTGT TAAAAGGACA ATTACAAACA
5151 GGAATCGAAT GCAACCGGCG CAGGAACACT GCCAGCGCAT CAACAATATT
5201 TTCACCTGAA TCAGGATATT CTTCTAATAC CTGGAATGCT GTTTCCCGG
5251 GGATCGCAGT GGTGAGTAAC CATGCATCAT CAGGAGTACG GATAAAATGC
5301 TTGATGGTCG GAAGAGGCAT AAATTCCGTC AGCCAGTTA GTCTGACCAT
5351 CTCATCTGTA ACATCATTGG CAACGCTACC TTTGCCATGT TTCAGAAACA
5401 ACTCTGGCGC ATCGGGCTTC CCATACAATC GATAGATTGT CGCACCTGAT
5451 TGCCCGACAT TATCGCGAGC CCATTTATAC CCATATAAAAT CAGCATCCAT
5501 GTTGGAAATT AATCGCGGCC TCGAGCAAGA CGTTCCCGT TGAATATGGC
5551 TCATAACACC CCTTGTATTA CTGTTATGT AAGCAGACAG TTTTATTGTT
5601 CATGATGATA TATTTTATC TTGTGCAATG TAACATCAGA GATTTTGAGA
5651 CACAACGTGG CTTTCCCCCCC CCCCCCATTA TTGAAGCATT TATCAGGGTT
5701 ATTGTCTCAT GAGCGGATAC ATATTTGAAT GTATTTAGAA AAATAAACAA
5751 ATAGGGGTTTC CGGCCACATT TCCCCGAAAA GTGCCACCTG ACGTCTAAGA
5801 AACCAATTATT ATCATGACAT TAACCTATAA AAATAGGCGT ATCACCGAGGC
5851 CCTTTCGTC

FIGURE 3C

SEQ ID NO: 4

1 GGCAATGGGT CGAAATTCTAT AGAATTTGT GTGAGGTGCG TAGCGGCTCT
51 GACAGGGGTG CTGCGCGGAG ATCTCTGGTC TCAGGGTAGGG CGACAATGGA
101 GAGGTGTTAG TTGCCCCCTG TATCGCTCTC TGCGTGGCGC ATTGGGTCTAT
151 CCTGCCCGGA CATATGATAT TCCGCTAGAG GATTACTGAT AGTTTCTGCC
201 TGTCGGGCTT GTCCGGCTTG TCAGGGCTTGT CGGGCTTGTC GGGCCTGTCC
251 CTCTTGTCCC GCCTGTCCCTC ACTTTTCAC AATCAAAAAA TGGGCGAAGC
301 CCTTCTGTT CTATAGTTCT TATAGTTCAT ACGAAAATTA CACATAATTA
351 TCAATAGCTT ATTGCTTAA AAGGGAGTAA TTGGGCCGCA AAAGGGAGTA
401 ATTGGGCCGC AAAAGGGAGT AATTGGGCCG CAAAAGGGAG TAATTGGGCC
451 GATATCGGTT GTTACATGG GGAGGAATCC CCTTAATCAT TTCTCCCCAT
501 GGGAAAGACA ACACAAGTGG CCGCAGACCG GGCCTTCGAC CAGACAAAAA
551 CTGTGCTCCC TGCGAGGTG GCGAGAGGGG TCTATATGCG CAATCCGCC
601 CGCCTGCAGG CGCTCAAGCT CATGCATTAA ATGATAGCCA CTGCGGGCGG
651 CCGCATGGCT GATGATGTGC GCCATGAAAT GCGGCTGGCC GACATTGCG
701 CAATCGACGG CATGAAAAC CATGACCGTG AGAGCCTGAC CCCGCTGTT
751 GAGGAGCTAG CCGCTGCGGT GTTGACCCAT GATGACCCCTG CAAAGATGAT
801 CGTGACAGTC GGCAGCTTGG TCGATGAGGC GCGAATAGAC TACCGCCAGG
851 AGGCAAGCGG CGAACTCCTA GTGACGTGGA CCTTCCGGAG TACATTCCGT
901 CGTATGGCGG CGGAGTCGAA CCAGTGGCC ATTCTCGACC GTCAAACGGT
951 ATTCCATCTC GGTAGTAAGT ATTCCGTGCT GCTGTTCCAG CACGTCTCTA
1001 GTCTCGCCAA TCTTGATCGG ATGAGCGCGA AAACCTTTAC GGTCCCCGAG
1051 TTGCGGGCGC TCCTTGGAGT GCCCGAGGGG AAGATGGTTC GTTGGAACGA
1101 CGTTAACAGA TTTGCTCTCA AACCTGCCACT GGATGAGATC AACCAATTAT
1151 CGCGTCTGAC ATTGACGGCA AAGCCGACCA AGATTGGCCG TAGCGTGGCA
1201 AGTGTGACTA TAGGCTGGGA AGTGAAGAC GACCCAACCG TCGCCAGGCG
1251 CGAGCTGGCG GGTCCAAGG TCGGTGAGA TGCTCGTCGC AGAGGGCAG
1301 CGGAAACGAT AGCCCCCTCC TTCCCAGAAG CGGGCGGGAT CACCTACAGT
1351 CCACGTTGGC TGGAGCTGAA ACGCTCTGCT GGCAGCAACA AGGACAACGA
1401 TCTGATCGCC TCAGACTTCC GGCGTTCTG TCGGGAGAGA GGCCTGCGTC
1451 TGGACGCTGTC AAACATCGAA AAACCTTTT TAGATTCTG CGCAAAGGTA
1501 GGGAAAGGTTT GAGTTTGAG GTATTCACC GCAATAGTGT TAAATGACTT
1551 TCGTGAACG ATGTGCAATA TAGCGGTAAAG ACTATGAAAT ACACGGCTGG
1601 ACAGGCTGCA AAAGCAACGG GTGTGGCGAC CGCAACCATC ACTCGGGCGC
1651 TAAAAAGCGG TAAAATTCC GGTAAAAAAG ATGAATCTGG GGCATGGGTT
1701 ATAGATCCTG CAGAATTGCA CAGAGTGTGTT CCTCCCATT CAAAGAAATA
1751 CACCGAAACA CCTAACACGC AAGTATATGG TAAGCGTGAT GAAACACATG
1801 AAATGACCTC AGAAATCAGC GCATTAGAGC GTGAAGTTCG GACTTTACGC
1851 GATGCTTTAT CTGATGCCAG GGAGGATCGC GACAAATGGC GCGACATGGC
1901 CGAGCGTCTT TCAATTTCAT CACCGATGAG AGAGGAAGAC CGCCCCCTC
1951 AAAAACAAAG ATGGTGGAAAG ATATTCTGAT CCTGGGCTTC AGGAGCCTTG

FIGURE 4A

2001 CCTTTAAAAC CTGAATCAGC ATTCTAGCGA TGCTGATAAG AAGTAAATAT
2051 AGCCACAATA GAGCGGCCAT TTTCCATTCA CATAACAGCTC ATCATGTGAT
2101 CAATATCAAG TATTGATATT CATCAATGGA GAAGAATTAA CATGTATCAC
2151 AGGATCATCA CAGCATTGT TTTTGTATTT CTAAGTGCTA ACATAACTAT
2201 CGCTGGCCCT AAAGAAGATT GTACTATTGC AGTATCTCAC CTTGGGTTTC
2251 AGACCGATAA TTACAGCTTT GTCGAAGCCG GTTTTTTGCA CAGAGAGAGA
2301 CACGTTTTG ATGGTGTAAAT AAACTGCTAC GTATCTCATG ATGGTAACAT
2351 ACACAGCATC ATCCGGGGCA ACACACCTCT TATGGAAGAT GGATATTATG
2401 GCCCAGAAAGT ACTGGCGGAA AAACGCGATA TTGAGGCACA GGCCCGCACT
2451 TTAGAGGCAGG AAGCCTATAA CGAGTACCAA AACACTAGAA GCCAGATTGA
2501 GGAAAATAGG GAAACGTG

FIGURE 4B

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